

# PAL-COFFEE

Digital Hand-held "Pocket" Refractometer

	<b>PAL-COFFEE</b> Cat.No.4523	<b>PAL-COFFEE(TDS)</b> Cat.No.4532	<b>PAL-COFFEE(BX/TDS)</b> Cat.No.4533
Measurement Range	Brix : 0.00 to 25.00%(ATC) Temperature : 10.0 to 100°C	TDS : 0.00 to 22.00%(ATC) Temperature : 10.0 to 100°C	Brix : 0.00 to 25.00%(ATC) TDS : 0.00 to 22.00%(ATC) Temperature : 10.0 to 100°C
Resolution	Brix : 0.01% Temperature : 0.1°C	TDS : 0.01% Temperature : 0.1°C	Brix : 0.01%, TDS : 0.01% Temperature : 0.1°C
Measurement Accuracy	Brix : ±0.10% Temperature : ±1°C	TDS : ±0.10% Temperature : ±1°C	Brix : ±0.10%, TDS : ±0.10% Temperature : ±1°C
Temperature compensation range	10 to 100°C (Automatic Temperature Compensation)		
Ambient Temperature	10 to 40°C		
Sample Volume	At least 0.3ml		
Measurement Time	Approx. 5 seconds 120 seconds of continuous measurement		Approx. 3 seconds
Power Supply	Two (2) AAA alkaline batteries		
International Protection Class	IP65 Dust-tight and Protected against water jets.		
Dimensions and Weight	55 (W) × 31 (D) × 109 (H)mm, 100g (main unit only)		

- To control coffee concentration using TDS%, PAL-COFFEE (TDS) is recommended. ATC=Automatic Temperature Compensation
- To ascertain both Brix% and TDS%, PAL-COFFEE (BX/TDS) is recommended.

All ATAGO refractometers are designed and manufactured in Japan.

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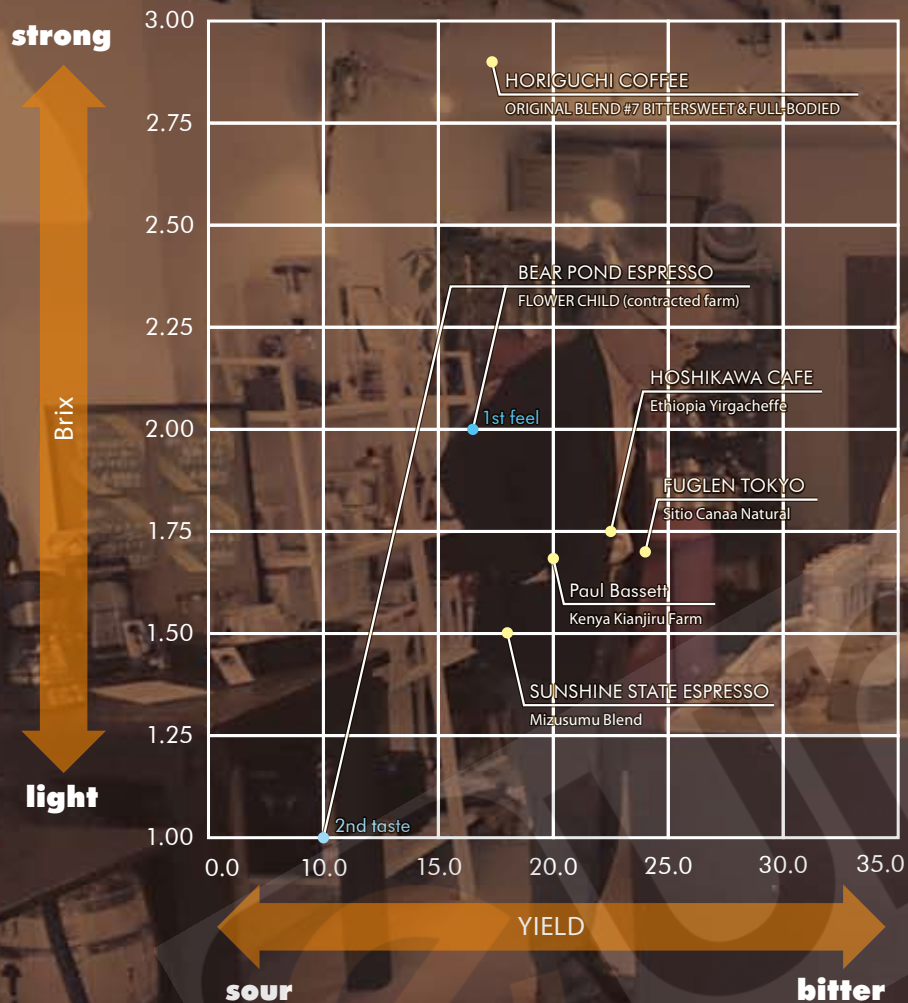
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\* Specifications and appearance are subject to change without notice.

[ENV.02] 15011000PP Printed in Japan



## Brix and Yield (with target value examples provided by our coffee shop customers)



### Yield calculation example

When 140g (ml) of coffee brewed from 12g of grounds measures 1.8% Brix:

$$\frac{1.8 \times 140}{12} = 21\%$$

When 1,600g (ml) of coffee brewed from 100g of grounds measures 1.6% Brix:

$$\frac{1.6 \times 1600}{100} = 25.6\%$$

### Typical correlation

- Too low a yield = sour-tasting coffee
- Too high a yield = bitter-tasting coffee
- High Brix = strong coffee
- Low Brix = weak coffee

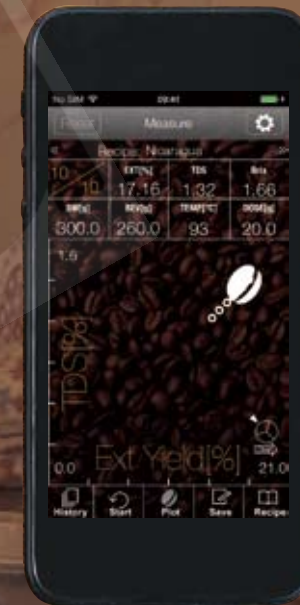
\*The Brix / concentration of coffee may not always be indicative of its yield.

### Before & After Measurement

- **Zero-set the unit with room temperature water.**  
Make sure that both the unit and water for zero-setting have been acclimated to room temperature.
- **Keep the prism clean.**  
Residues left behind may cause erroneous readings. Clean the prism thoroughly after each measurement. Cotton swabs work well for cleaning the edges.

### Tips for Measuring Different Types of Coffee

- **Common for all types**  
The concentration of coffee changes over the course of the extraction process. Gently stirring the coffee will even out the consistency and promote measurement stability.
- **French press coffee**  
Pour the coffee into a cup and let it sit undisturbed for a while to allow particles to sink to the bottom. Avoid sampling from the oily surface.
- **Espresso**  
Espresso generally contains more particles than drip coffee. Measurement fluctuation by 0.5% is common.
- **When cupping**  
Scoop out any floating grounds and oil thoroughly as they may cause unstable measurements.



### MY COFFEE RECIPE

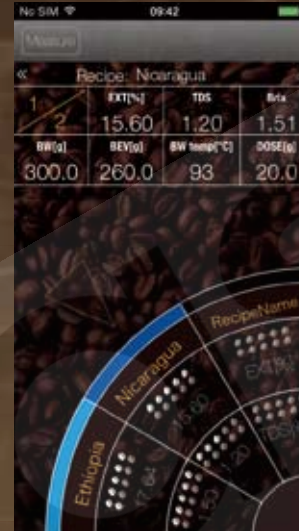
Ideal for top quality coffee recipe management.

# MY COFFEE RECIPE

Ideal for top quality coffee recipe management.



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UNIT

Dose

kg oz lb

BEV - BW

g kg oz lb ml L fl-oz gal

Temperature °C °F

OTHERS

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Create recipe

Dose ☆

Score

Brew time

Brewing equipment

Grinder

Grinder setting

Coffee beans item

Country ☆

farm/farmer

Variety

Process

Roast Item

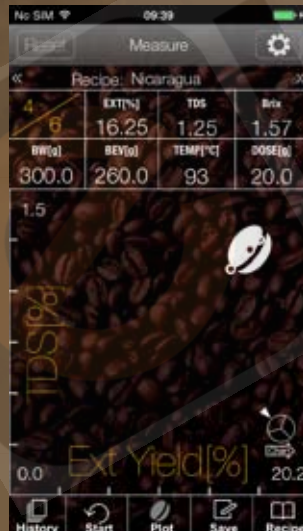
Roast name ☆

Roast style

Roast date/time

Memo

Memo



Date	EXT	TDS
2014/10/21	EXT:16.25	TDS:1.25
2014/10/21	EXT:14.95	TDS:1.15
2014/10/21	EXT:16.25	TDS:1.25
2014/10/21	EXT:16.90	TDS:1.30
2014/10/21	EXT:16.12	TDS:1.24



Date	EXT	TDS
2014/10/21	EXT:17.16	TDS:1.32
2014/10/21	EXT:16.54	TDS:1.25
2014/10/21	EXT:16.54	TDS:1.25
2014/10/21	EXT:14.30	TDS:1.10
2014/10/21	EXT:17.55	TDS:1.35
2014/10/21	EXT:14.30	TDS:1.10
2014/10/21	EXT:16.25	TDS:1.25
2014/10/21	EXT:14.95	TDS:1.15
2014/10/21	EXT:16.25	TDS:1.25
2014/10/21	EXT:16.90	TDS:1.30
2014/10/21	EXT:16.12	TDS:1.24